CLAIMS

1. A method for production of resveratrol in a culture of cells naturally producing resveratrol, in suspension, consisting of incubating such cells in the presence of a randomly methylated β-cyclodextrin (RMBCD) with a degree of substitution ranging from 11 to 13 under conditions that allow for resveratrol synthesis and excretion into the culture medium and, if desired, for isolation of resveratrol from the culture medium.

2. Procedure according to claim 1, in which such cells naturally producing resveratrol include cells from *Pinus sibirica, Pinus sylvestris, Gnetum parviflorum, Vitis vinifera, Polygonum cuspidatum, Arachis hypogaea, Eucaliptus sp., Artocarpus lakoocha, Nothofagus fusca, Phoenix dactilifera, Festuca versuta, Carex fedia* o *Veratrum grandiflorum*.

3. Procedure according to claim 1, in which such RMBCD with a degree of substitution ranging from 11 to 13 is a cyclic maltooligosaccharide consisting of 7 D-glucose units bound by type α(1→4) glucoside bonds and whose hydroxyl groups in positions 2, 3, and 6 of the D-glucose units may be free or derivatized by methylation, carrying methoxy chemical groups, with the condition that it has 11 to 13 methoxy groups per cyclodextrin ring.

4. Procedure according to claim 3, in which such RMBCD with a degree of substitution ranging from 11 to 13 is the cyclodextrin identified as RAMEB or the cyclodextrin identified as CAVASOL® W7 M.

5. Procedure according to claim 1, in which such cells producing resveratrol are cells from *Vitis vinifera* that are cultured in a liquid medium, with an intermediate auxin/cytokinin hormone ratio, in the presence of such RMBCD with a degree of substitution ranging from 11 and 13, with orbital shaking, at a temperature ranging from 20°C to 28°C, under a photoperiod of 0 to 16 hours of light and 8 to 24 hours in the dark.

6. Procedure according to claim 1, in which the resveratrol produced is the *trans*-resveratrol isomer.

7. A method for inducing resveratrol synthesis in a culture of cells naturally producing resveratrol, in suspension, consisting of incubating such cells in the presence of a RMBCD with a degree of substitution ranging from 11 to 13 under conditions that allow for the synthesis of resveratrol by such cells.

8. Method according to claim 7, in which such cells naturally producing resveratrol include cells from *Pinus sibirica, Pinus sylvestris, Gnetum parviflorum, Vitis vinifera, Polygonum cuspidatum, Arachis hypogaea, Eucaliptus sp., Artocarpus lakoocha, Nothofagus fusca, Phoenix dactilifera, Festuca versuta, Carex fedia* o *Veratrum grandiflorum*.

9. Method according to claim 7, in which such RMBCD with a degree of substitution ranging from 11 to 13 is a cyclic maltooligosaccharide consisting of 7 D-glucose units bound by type $\alpha(1\rightarrow4)$ glucoside bonds and whose hydroxyl groups in positions 2, 3, and 6 of the D-glucose units may be free or derivatized by methylation, carrying methoxy chemical groups, with the condition that it has 11 to 13 methoxy groups per cyclodextrin ring.

10. Method according to claim 9, in which such RMBCD with a degree of substitution ranging from 11 to 13 is the cyclodextrin identified as RAMEB or the cyclodextrin identified as CAVASOL® W7 M.

11. Method according to claim 7, in which such cells producing resveratrol are cells from *Vitis vinifera* that are cultured in a liquid medium, with an intermediate auxin/cytokinin hormone ratio, in the presence of such RMBCD with a degree of substitution ranging from 11 and 13, with orbital shaking, at a temperature ranging from 20°C to 28°C, under a photoperiod of 0 to 16 hours of light and 8 to 24 hours in the dark.

12. Method according to claim 7, in which the resveratrol produced is the *trans*-

resveratrol isomer.

13. A method to accumulate, in a culture medium of cells producing resveratrol in suspension, the resveratrol excreted by such cells at concentrations higher than the solubility limit in such medium containing no cyclodextrins, consisting of adding to such culture medium a RMBCD with a degree of substitution ranging from 11 to 13.

14. Method according to claim 13, in which such cells producing resveratrol are cells naturally producing resveratrol, or cells nor naturally producing resveratrol but which have acquired the capacity to produce resveratrol.

15. Method according to claim 14, in which such cells producing resveratrol include cells from *Pinus sibirica, Pinus sylvestris, Gnetum parviflorum, Vitis vinifera, Polygonum cuspidatum, Arachis hypogaea, Eucaliptus sp., Artocarpus lakoocha, Nothofagus fusca, Phoenix dactilifera, Festuca versuta, Carex fedia* o *Veratrum grandiflorum.*

16. Method according to claim 14, in which such cells producing resveratrol include cells from a plant not naturally producing resveratrol, i.e. transgenic.

17. Method according to claim 13, in which such RMBCD with a degree of substitution ranging from 11 to 13 is a cyclic maltooligosaccharide consisting of 7 D-glucose units bound by type $\alpha(1\rightarrow4)$ glucoside bonds and whose hydroxyl groups in positions 2, 3, and 6 of the D-glucose units may be free or derivatized by methylation, carrying methoxy chemical groups, with the condition that it has 11 to 13 methoxy groups per cyclodextrin ring.

18. Method according to claim 17, in which such RMBCD with a degree of substitution ranging from 11 to 13 is the cyclodextrin identified as RAMEB or the cyclodextrin identified as CAVASOL® W7 M.

19. Method according to claim 13, in which such cells producing resveratrol are cells

from *Vitis vinifera* that are cultured in a liquid medium, with an intermediate auxin/cytokinin hormone ratio, in the presence of such RMBCD with a degree of substitution ranging from 11 and 13, with orbital shaking, at a temperature ranging from 20°C to 28°C, under a photoperiod of 0 to 16 hours of light and 8 to 24 hours in the dark.

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20. Method according to claim 13, in which the resveratrol accumulated is the *trans*-resveratrol isomer.